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DEFORMITY OF THE PELVIS PRODUCED BY PROJECTION OF THE SACRAL PROMONTORY.

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THE design of this paper is to call your attention to a class of obstetrical cases in which the use either of the forceps or the perforator is frequently required. The class to which I refer consists of those cases in which the antero-posterior diameter of the pelvis is diminished, principally by an excessive growth and consequent abnormal projection of the promontory of the sacrum, and in a less degree by a general enlargement of the bones entering into the structure of the upper strait of the pelvis.

When this deformity exists only in a slight degree, it may not prove an insurmountable obstacle to the natural delivery of a small child in a favorable presentation. There are some women whom I have attended who have had some of their children, particularly females, unaided; but who, under less favorable circumstances, have required the intervention of art. And it may be remarked, in this connection, that the knowledge of the fact that a woman has had one or more natural labors may not always be a sufficient reason for leaving the case to nature. A difference in the size of the head of the child, or a difference in the presentation, may make the difference between a living child and a dead one, to say nothing of the increased danger of the woman when left to labor too long to overcome an insuperable obstacle. Where the deformity exists in an aggravated degree, the intervention of art will always be required, and the great practical questions are, how and when art should come in to the aid of nature, or to take the case out of her hands. Before answering these questions, that is, before giving you my views upon the subject, you will allow me to premise a few remarks upon the frequency and causes of the deformity under consideration, based upon personal experience.

Somewhat extensive observation has led me to the opinion that this is by far the most common deformity met with in practice in

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this city and vicinity; perhaps I may say that the ratio of its frequency is not less than ten or twelve to one of any other that has come under my observation. The query suggests itself, why is this deformity more frequent than others, or, in other words, what is the cause of it? Is it caused by an irregular growth of diseased bone, or is it only an excessive growth of healthy bone? That it is the latter seems to me very evident, for the following reasons. First. It is found to exist in women who are and always have been strong and healthy. Secondly. It is much more frequently met with among laboring women than among the indolent, and consequently delicate, classes. Among the Irish women it is of frequent occurrence, while among American women, particularly the wealthier classes, it is extremely rare. We have in this fact an explanation of the reason why there are so many more stillborn children among the Irish than among the American population in proportion to the number of births. If this deformity were caused by disease of the bones, the general system would necessarily have suffered severely and for a long time, and other deformities would be likely to co-exist. The reason why this particular deformity is more frequent among Irish women than among American, is easily explained by the different circumstances under which they have grown up, and the different occupations they have followed. In Ireland, the lower classes, among whom these deformities occur most frequently, are put early to hard labor—planting and digging potatoes, carrying heavy loads upon their backs or heads, and other occupations, as servants to the rich, not less laborious—and when they arrive in this country it is only a change of programme. They are employed to do the hard work in families and hotels; washing and ironing, carrying water up and down stairs, carrying hods of coal and scrubbing floors are among their daily tasks. These occupations require great muscular strength, and their muscular systems are developed in proportion to the demand. They require a strong frame-work for this powerful muscular system to act upon, and to sustain the great weight so frequently put upon it, and the bony structure is correspondingly developed as a physical necessity. The bones of the pelvis, the sacrum particularly, and the lower lumbar vertebrae, constituting as they do the base of the spinal column, upon which all superincumbent weight must be sustained (whether such weight be carried in the hands or arms, or on the back or head), must of necessity grow and expand, or bend and break. In a slow and gradual manner nature accommodates herself to the circumstances, and the female pelvis becomes strengthened and enlarged, approximating in conformation to that of the male. What is added to the size of the bones must in part be taken from the spaces between them. This, in brief, is to my mind a satisfactory explanation why so many large and fully-developed women, when viewed in their exterior, have hard and difficult labors. In American women

these circumstances are nearly all reversed. Even our farmers' daughters, though they perform more or less labor, are still brought up and educated more like ladies than like servants, and are rarely compelled to perform laborious duties till they have arrived at maturity, after which, the process of ossification being nearly completed, important changes are less liable to occur. As a general rule, they have favorable labors. In our manufacturing towns and villages, girls are, it is true, put to work at an early age; but their employments are of a light kind, requiring activity rather than strength. Close confinement and want of pure air in the manufactories, and in some instances perhaps an insufficiency of nutritious food, may, and I think do, cause certain diseased deformities and an imperfect development of the osseous structure, and an occasional case of difficult labor may occur, but these cases are rare and of a different character from those under consideration.

Not to tire your patience with further details of the subject, I will briefly remark that I am of opinion that by knowing the habits and pursuits of a people—whether nations, races or classes—we may arrive at a very just opinion as to the general character of their labors. I would not be understood to mean that such an opinion could be formed when reference was had exclusively to those influences which tend to mould the bony structure; but by knowing the habits and pursuits of a people we should, also, be enabled to form a judgment of the degree of development of the muscular system, and of all the organs that are concerned in parturition. It was not my intention to refer to any authority upon this subject, but since writing the above I incidentally met with a passage in Bedford that suits my purpose, and with your permission I will quote it:—

"There exists, also, a very remarkable discrepancy of opinion among writers as to the relative frequency of locked-head compared with other formidable obstacles calling for the interposition of science. The example, while it is conceded that it is of rare occurrence in France, our own distinguished countryman, Dr. Dewees, avows that he has never recognized an example of it in his practice, which circumstance he refers to the fact of the generally prevailing healthy or normal pelvic conformation of our American women; yet we have a high authority, Camper, assuring us that, in Holland, locked-head is by no means among the rare occurrences of the parturient chamber. This discrepancy, it seems to me, arises from the circumstance of the general want of concurrence as to the true meaning of the term locked-head; for I can see nothing in the women of Holland so marvellously different from those either of France or America which could rationally account for the very extraordinary alleged difference in the relative frequency of the complication under discussion. Therefore, I repeat, locked-head is one thing in Holland, another in France and our own country."—*Bedford's Principles and Practice of Obstetrics*, p. 602.

I will briefly remark that there is in my mind no doubt of the correctness of Dr. Dewees' opinion respecting American women. Of the women of Holland I have no personal knowledge, but I can more easily conceive that there may be circumstances which cause a difference in the conformation of the women of different countries, than that such men as Dewees and Camper should be ignorant of what constitutes a locked-head, or that locked-head is understood to mean one thing in one country and another thing in another country.*

To return to the practical questions, how and when it becomes our duty to come to the aid of nature, or, if she have entirely failed, to take the case out of her hands and substitute art in these deformities, it may be remarked that the first question to be decided is, whether delivery can be effected with the forceps, or whether craniotomy must be resorted to in order to save the life of the woman. That the lives of a great many children have been sacrificed that might, by the use of suitable forceps in skilful hands, have been saved, does not in my mind admit of a doubt. Perhaps there are very few obstetricians of any considerable experience who cannot recal a larger or smaller number of cases in which craniotomy was performed, and in which after-experience with the same woman has shown that the operation was unnecessary. If I mistake not, the French and Germans use the forceps six or seven times as frequently as the English, while the English open the heads of many more children than either. Religion makes this difference. In Catholic countries, and among Catholics in all countries, the Church peremptorily forbids the practice of destroying one life to save another, and hence craniotomy is never permitted by them unless there is positive evidence that the child is dead. By waiting for this event to take place in cases in which delivery cannot be effected with the forceps, the life of the woman is very much endangered and is not unfrequently lost. It must be conceded, however, that some good has grown out of this peremptory rule of the Church. The frequency of destroying the child under doubtful circumstances has been lessened, the forceps have been improved, more skill and tact have been acquired in their application, and the full extent of the applicability and power of the instrument have become more generally and fully understood and appreciated. In the deformity under consideration, resulting, as I have presumed, from an excessive growth of bone rather than from disease, it fortunately happens that in a very large proportion of the cases the antero-posterior diameter of the pelvis is not lessened to such a degree as to prevent the de-

* Having practised twelve years in a part of the country where, at the time, with the exception of a few Scotch and English, the population was purely American, and since that time nearly thirty years in this city, where my obstetric practice has been somewhat extensive among the Irish, an opportunity has been afforded me of comparing the character of the labors of the two nations. I find, too, that my experience corresponds with that of several other physicians who have been similarly situated.

livery of a living child, if the delivery be accomplished at the proper time.

In answering the question, therefore, how we shall interpose art in these deformities when nature fails, I wish it to be understood that I am most decidedly in favor of essaying the forceps in all cases in which there is a possibility of success; that I believe they may be made available in a very great many instances in which craniotomy is usually resorted to; that many lives may thereby be saved, and that I consider the hasty resort to so revolting if not wicked an operation as opening the head of a living child as highly culpable and inhuman.

Perhaps there are few questions that are more difficult to answer, or in reference to which we have more solicitude, than as to the time when we shall cease to trust to nature and proceed to deliver, in order to give both mother and child the best chance for life. We always feel a reluctance to propose the use of instruments, as it at once conveys to the mind of the patient and her friends the idea of unusual difficulty and danger, and we are hence induced to wait in constant expectation that a favorable change will take place and relieve us from the disagreeable necessity of creating an alarm, or, perhaps, from the vexation of meeting with a decided opposition to our plans. In the meantime, the child's head is being compressed into a smaller and smaller compass, and its chances of life are momentarily lessening, and, when at last we are compelled to deliver, we find that we have waited too long. The child is dead, and we may congratulate ourselves on our good fortune if its death is not attributed to the use of instruments, and some sage old woman darkly hint that if the labor had been left to nature the child would have been alive. In primiparæ there is sometimes a peculiar difficulty in deciding when we should act. There are so many causes which combine to retard labor, which are not likely to exist in multiparæ, such as rigidity or slow development of the os internum, an unyielding condition of the other soft parts, exhaustion, &c.; and the difficulty of measuring the capacity of the pelvis, while it is occupied by the head of the child, is so great that we are often halting between two opinions for a long time before deciding upon what, to the patient at least, appears to be an extreme measure. In multiparæ, the capacity of the pelvis having been tested, the woman having given birth to two or three stillborn children, after tedious, and perhaps instrumental labors, the time when we should act is evident, and it is to this point to which I wish more especially to call your attention, as the life of the child will be saved or lost in proportion to the judgment and skill of the accoucheur. In primiparæ, I know of no better rules for the use of instruments than those laid down by authors upon that subject; the head being locked in the upper strait, no perceptible progress being made under what appear to be efficient pains, the scalp becoming much tumefied, or

exhaustion supervening, while, at the same time, the soft parts are developed to such a degree as, in the judgment of the attending physician, will allow of the application of the forceps without the danger of lacerating the uterus or other soft parts. It is, to say the least, very desirable that the head should have entirely escaped from the uterus, and I would suggest that this may be assumed as a rule, liable, however, to some exceptions. I have in a few instances applied the forceps within the neck of the uterus with safety, but should never do it except to avoid a greater danger. In women who have borne children, the development of the os uteri usually progresses more rapidly, and there will not, in a majority of cases, be a sufficient amount of labor to destroy the child before the soft parts are in a condition to admit of safe delivery. The time to deliver in these cases is immediately after the os uteri has slipped over the head, or, if there are causes which prevent this from taking place in a normal manner, as soon as the os is sufficiently dilatable to admit of the use of the forceps without endangering the integrity of the uterus. After the os uteri has passed fairly over the head, the character of the pains changes. The uterus contracts with more power and less suffering, and the whole force of the abdominal muscles is added to that of the uterus in the vain struggle to expel the child, whatever the resistance. Under these circumstances, the chances are that the life of the child will soon be destroyed. It is the constant and long-continued pressure between the bones that kills the child rather than the amount of pressure; in other words, a small amount of pressure continued for a long time will destroy life, while a much greater amount may be harmless, if continued only for a short time. I am not unaware that in natural labors the head of the child is often very much compressed, elongated, and moulded to the form of the maternal organs without serious injury; but in natural labors the compression is effected principally by the soft parts, and the head not being immovably fixed in the bones, recedes during the intervals between the pains, and the circulation in the brain, which is temporarily retarded by compression, is at each interval reëstablished. On the contrary, even in natural labors, the life of the child may be destroyed by compression of the brain caused by the incessant contraction of the uterus produced by an injudicious use of ergot. In support of these views, I propose to state a few cases from memory.

CASE I.—An Irish woman had three or four girls born alive; subsequently, she had seven or eight boys, all stillborn. Some were delivered by the forceps, some by craniotomy, and perhaps some were forced through by the natural pains. I delivered her of her last child with Channing's short forceps. The head was high up, resting rather above than in the upper strait, and the handles of the forceps were buried within the vagina. The projection of the promontory was rather unusually great in this case, and it is not cer-

tain that any of the boys could have been born alive, but inasmuch as she had had living girls it is more than probable that instrumental delivery would have been successful in some of the cases had it been resorted to at the right time. But, as far as I know and recollect, the right time was always allowed to go by. The children were doubtless dead before delivery was attempted.

CASE II.—Some twelve or fifteen years since, I was called to deliver a woman in Gaspee St., in her first confinement. On my arrival at the house, I found that she had been in labor three days, under the care of a noted midwife, and that, for many hours, the pains had been extremely hard. At the time of my arrival the pains had in some measure subsided from exhaustion, the head was locked in the upper strait, and the os internum was fully dilated. I informed the woman and her friends that the child was probably dead, but if alive I was confident it could be delivered without injury. They promised to be satisfied with the result, if the life of the woman could be saved. The forceps were applied, and a dead child delivered without unusual difficulty. At her next confinement I was sent for to attend her, and succeeded in persuading her to be delivered as soon as the soft parts were in a suitable condition. The child was of fair size and living. Whether I delivered her of another living child or not I do not recollect, but I have an impression that I did. In her third or fourth confinement she employed the midwife who attended her in her first. As her labor did not progress favorably the midwife became alarmed, and I was sent for in the middle of the night; but some details of the case given by the messenger, and my knowledge of the conformation of the woman, led me to strongly suspect that the uterus had ruptured before they sent. Not wishing to take charge of the case under the circumstances, I declined going. What I suspected, proved to be the fact. The uterus had been ruptured, and I was informed that she died while an attempt was being made to deliver her. In this case the deformity was not so great but that she might, by the right means at the right time, have been delivered with safety to herself and probably to her child. She was a healthy woman, and, as far as I recollect, exteriorly well formed.

CASE III.—Some half a dozen years since, I was requested to meet Drs. F. and C. in the case of Mrs. M., who was in labor with her first child. It was about 3, P.M., when I met the physicians, from whom I learned that the woman had been in labor two or three days. In the afternoon of the day preceding our consultation, the pains, which had been hard and regular, subsided, and notwithstanding that ergot had been given in liberal doses they had not returned. It had now been twenty hours or more that there had been no uterine effort. Upon examination, it was found that the head was firmly wedged in the upper strait. The os uteri was out of the way, and the other soft parts were in a favorable condition. The general

aspect of the patient was much better than could have been expected under the circumstances. The consultation was short. There was no difference in opinion as to what must be done. The woman must be delivered. The only question was, how? I proposed to deliver with the forceps. Dr. F. replied, "If we can." I remarked that we could try, and in case of failure open the head. There was every reason to believe that the child was dead, though it might possibly be alive. By request, I applied a pair of long forceps (Hodge's), and delivered a dead child without unusual difficulty or delay. After delivery, it was found that she had the difficulty of which we are speaking in a marked degree. A year and a half, perhaps, afterwards, I was called to attend this woman in her second labor. Knowing the existence of the deformity, I told her that if she would consent to be delivered when I thought proper to do it, I would endeavor to deliver her of a living child. She agreed to my terms, and I availed myself of the earliest moment that the forceps could be applied with propriety, and delivered her of a living child. Where the head had rested on the promontory of the sacrum, there was an irregular oval depression, which would have received nearly or quite one half of the shell of a butternut. This depression was on the right and anterior part of the head, over the anterior part of the parietal bone. This child is now alive. The depression is nearly obliterated, and, as it is covered by hair, occasions no deformity. In due time I was called to this woman again. The same course was pursued. The child was alive, and had a similar depression on the opposite side of the head. The intellect of these children was apparently not injured. The fourth labor of this woman was more unfortunate. It was a breech presentation. The child was large, and there was great difficulty and delay in delivering the body; and, as was anticipated, the head could not be brought through the upper strait without great force. I applied the long forceps, and finally succeeded in delivering it. It is needless to say the child was dead. The woman had inflammation, but ultimately recovered.

CASE IV.—Mrs. C. had two or three stillborn children in consequence of this deformity. I have since delivered her of two living children. The deformity in this case is not extreme, but sufficient to destroy her children when left to nature.

CASE V.—In the same house with Mrs. C. lives a woman whose name I do not recollect, who, with her first child, is said to have had a very tedious and hard labor. The child was stillborn. In her second confinement, I was called. She had already been in labor some time when I arrived, and objected to the use of instruments for fear they would kill the child. When at last she consented from necessity, it was too late—the child was dead. I have since delivered her of a living child, by operating as soon as the conditions were right.

CASE VI.—A woman in Clifford St. had two or three stillborn children, after very hard and protracted labors. I have since deli-

vered her of two living children and one stillborn. The last was an arm presentation. Ether was administered and the child turned, but the head was delivered with difficulty, and the child lost of course.

CASE VII.—A Mrs. M. had been delivered a number of times with instruments. Some of her children have been dead and some alive. The last two have been saved by timely delivery.

CASE VIII.—A woman on Spruce St., whom I attended a few months since, has this deformity in a degree that admits of the birth of a living child by instruments, but not without them.

CASE IX.—Mrs. McKenna, a young, healthy, and apparently well-organized woman, rather below the medium height and of a moderately full habit, has the deformity under consideration in a marked degree. She has given birth to five children. In her first confinement she was attended by the late Dr. Fearing, whose great experience and skill are well known. After a hard and tedious labor, she was delivered of a stillborn child, with the forceps. In her second confinement, she was attended by a woman. I was sent for, but the child was born when I arrived. It was stillborn. In her third confinement I attended her, and delivered her with the forceps. This child was also stillborn. I attended her in her fourth confinement, and attempted to deliver with the forceps, but, owing to the disparity between the size of the head of the child and the capacity of the pelvis, I was unable to deliver her with any force I thought prudent to use. Counsel was called, and, as it was morally certain that the child was dead, it was delivered by craniotomy. Her fifth child was a very small girl, and was born alive without assistance.

CASE X.—Two or three years since, I assisted Dr. — in the delivery of a woman in her first confinement. The child was dead. As Dr. — declined attending her again, I was sent for in her second confinement. She had the deformity under consideration. The forceps were applied as soon as practicable, and she was delivered of a living child.

Of this class of cases I might refer to many others, but it is unnecessary. When the deformity exists in an aggravated degree, delivery with the forceps is impracticable. The head cannot descend into the pelvis, and consequently does not distend the os uteri. Under these circumstances the os cannot retract over the head. The fact that the head does not, under powerful contractions of the uterus, descend and become fixed in the upper strait, is strong presumptive evidence that the deformity is so great that delivery cannot be accomplished with the forceps. Thus situated, the child may live till its life is destroyed by a failure of the maternal forces. I recall a number of these cases, in which the mothers were lost by waiting for the children to die. One woman died undelivered. The privilege of delivering her at a late hour was offered me, but I declined. The attending physician opened the body a few hours after

death to remove the child. The uterus was congested, and, in places, gangrenous, particularly about the neck. I requested the physician to pass his hand down through the upper strait and measure the antero-posterior diameter, and it was ascertained that it did not exceed three inches. Early craniotomy would have saved this woman, but it was her only chance. I recall several other similar cases, two in particular, within a few years, in which the women were delivered, but too late. They died.

The form that this overgrowth of bone takes on is by no means always the same. In some instances the projection is broad and uniform, in some irregular, and in others the point is either conical or wedge-shaped. An instance of the first I have seen within a few days, in which I could, without difficulty, explore the whole region. An instance of the second occurred in the third case related, in which there was an irregular depression on the anterior part of the parietal bone. Of the last, an instance occurred in a case I attended in the first part of January, two miles in the country. The call came to the house late in the evening. It happened that I had not my forceps at hand, and, learning from the husband that his wife had given birth to a number of children and had not required the use of instruments, I unwisely went without them. The case did not progress favorably, and I discovered by the posterior direction of the anterior fontanelle that it was an occipito-anterior presentation, and that artificial delivery would be necessary. I sent for my instruments, which took an hour or two, during which time the child died. When delivered, there was a depression on the child's head across the upper and anterior part of the parietal bone, which had the appearance of having been made by forcible pressure on the edge of some hard substance. While delivering the placenta, I explored the pelvis, found and examined the projection. It was wedge-shaped, quite thin at the edge, and evidently unnaturally prominent.

All the cases above related, and indeed many others that come to my recollection, as I take a retrospect of the forty years or more that have elapsed since I first attended a woman in labor, occurred in Irish women. They were all healthy women, and had been accustomed to hard labor. Their muscular systems and uteri, as far as could be known, were largely developed and powerful. Comparatively very few similar cases have occurred in American women.

Should it be inferred, from the above cases and remarks, that I am an advocate for the frequent use of instruments, or in any other way interfering with the natural course of labor when there is a probability that nature will, unaided, accomplish the end with safety to mother and child, I must most emphatically plead not guilty. On the contrary, I have, perhaps, been too cautious, and in many instances have waited so long for Dame Nature that I have sacrificed the child to my confidence in her ability. Perhaps it may be said

that some of these views, and what I consider to be rules of practice, differ from those of the standard authorities upon this subject. If so, I would say that my observations may have been made from a different point of view. It is a different aspect of the subject, and if they are right it is not an evidence that I am wrong. I would remark, however, that in my opinion, the rules of practice in these cases—the *how* and the *when* to operate—are not as clearly pointed out as might be with advantage to the inexperienced.

In conclusion, I would say that, while unnecessary and injudicious interference in a labor that is progressing favorably is highly censurable, the fact is indisputable that the forceps are one of the greatest blessings to women, and, in as far as life is desirable, a boon to the unborn child.

ON THE SOLVENT TREATMENT OF URINARY CALCULI.

BY WILLIAM ROBERTS, M.D., PHYSICIAN TO THE MANCHESTER ROYAL INFIRMARY.

THIS paper is divided into two parts. The first part is devoted to experiments and observations relating to the solvent treatment of uric-acid calculi by alkalizing the urine by internal medicines. The inquiry starts from two known data—namely: first, that uric acid is dissolved by solutions of the alkaline carbonates of a certain strength; and secondly, that alkaline carbonates can be introduced into the urine, so as to render it alkaline, by the administration of certain salts by the mouth. The practicability of dissolving renal and vesical calculi, composed of uric acid, by alkalizing the urine, is inquired into under ten headings, or sections, as follows:—

Section 1.—Comparison of solutions of carbonate of potash and carbonate of soda: in which it is shown that solutions of carbonate of potash are better solvents for uric acid than solutions of carbonate of soda.

Section 2.—Comparison of solutions of different strength: in which it is shown that the greatest solvent power (for uric acid) lies in solutions containing from forty to sixty grains of carbonate to the imperial pint. Above this strength dissolution is soon prevented by the formation of a crust of biurate, which invests the stone. Below this strength the solvent power gradually declines.

Section 3.—Comparison of the effects of varying volumes of solutions of constant strength. It is shown that the quantity of the solution permitted to pass over the stone, between the limits necessarily imposed by the capacity of the kidneys to separate aqueous fluids, is of slight importance. A flow of three or six pints during twenty-four hours was found nearly as effective as a flow of eight or fifteen pints.

Section 4.—Absolute rate of dissolution of uric-acid calculi in so-

lutions of the alkaline carbonates.—It is shown that solutions of carbonate of potash, of the maximum solvent power, when passed at the rate of from three to eight pints in the twenty-four hours over uric calculi, at the temperature of the body, dissolve from ten to twenty per cent. of the stone each day.

Section 5.—The most convenient way of alkalizing the urine, the degree of alkalescence which can be communicated to it, and the doses required to produce the desired effect.—The bicarbonate, acetate, and citrate of potash are found the most effective substances to alkalize the urine. Of the three, the citrate is preferred. It is found that forty grains of citrate of potash dissolved in five ounces of water, taken every two hours, alkalizes the urine to a mean degree corresponding with the maximum solvent power of solutions of carbonate of potash.

Section 6.—The effect of alkalized urine on uric-acid calculi.—The urine of a person taking full doses of citrate of potash, as recommended in Section 5, is passed over a uric-acid calculus at blood heat. The stone (weighing 180 grains) loses weight at the rate of twelve grains and a half in twenty-four hours. In the performance of experiments on this point it came out that if the urine became ammoniacal (from decomposition of urea), it ceased to dissolve the uric acid, and the stone became invested with a crust of precipitated phosphates. Whence the important deduction is drawn, that ammoniacal decomposition of the urine, in cases of vesical calculi, puts an absolute bar to the effectiveness of the solvent treatment by alkaline carbonates.

Section 7.—Illustrations of the application of the solvent treatment in practice: first in renal calculi, secondly in vesical calculi.—Two cases of complete dissolution of uric-acid calculi in the bladder are quoted from other authors. The author relates three cases which occurred in his own practice. In none of the latter did complete dissolution occur. One of the cases proved to be an example of mulberry calculus; another, an alternating calculus of uric acid and oxalate of lime. The second specimen offers peculiarities of surface which indicate with certainty that dissolution of the uric acid had taken place: these peculiarities are explained by the aid of drawings of the stone after extraction. The third case proved abortive, apparently because the treatment was not carried on sufficiently long. In neither of the cases was the treatment carried out as effectively (as the later experience of the author showed) as it might have been. The principal instruction from the cases is, the proof they offered that alkalizing the urine does *not* cause the stone to be encrusted with a phosphatic deposit, so long as ammoniacal decomposition of the urine does not take place.

Section 8.—Discrimination of the cases in which the solvent treatment is and is not applicable.—The conclusions come to are: That the solvent treatment is inapplicable in all cases where the urine

is ammoniacal. When the urine is acid (before treatment) the case is *prima facie* suitable for the alkaline solvent treatment; but exceptions must be made of cases where it is known or strongly suspected that the stone is composed of oxalate of lime, also where the stone is large. In cases where the urine is acid, and there is no indication of the nature of the stone, it may be either uric acid or oxalate of lime, or an alternating calculus composed of these two substances. Such cases deserve a trial of the solvent treatment for a limited period of a month or six weeks. The cases which are especially suitable for the solvent treatment are those in which (the urine being preliminarily acid) it is known or strongly suspected that the stone is composed of uric acid, and has not yet reached any large size.

Section 9.—Directions for carrying out the solvent treatment effectually.—The urine must be kept *continuously* alkaline, and alkaline to a mean degree corresponding with the maximum solvent powers of solutions of carbonate of potash. The treatment must be given up immediately if the urine become ammoniacal.

Section 10.—An examination of some of the objections which have been urged against the principles of the solvent treatment.

The appendix to the first part contains some experiments showing that cystine is even more amenable to the alkaline solvent treatment than uric acid.

The second part of the paper contains three sections.

Section 1 contains experiments on the solvent treatment of uric acid calculi by injections into the bladder. Solutions of the following substances were tried in a manner to imitate injections into the living bladder: bicarbonate and carbonate of potash, common phosphate of soda, basic phosphate of soda, borax, borax with liquor sodæ, potash soap, carbonate of lithia, liquor potassæ, and liquor sodæ. The results obtained demonstrated conclusively that their operation was so slow that no practical advantage could be obtained from their use.

Section 2 records some experiments on the effects of a solution of carbonate of soda and dilute nitric acid on oxalate-of-lime calculi: neither solvent promised any useful result.

Section 3 shows the unsusceptibility of phosphatic calculi to solutions of the alkaline carbonates. Brodie's method of injecting dilute nitric acid into the bladder was imitated in one experiment, with results confirmatory of his statement respecting the use of this treatment in phosphatic concretions.—*Proceedings of the Royal Medical and Chirurgical Society, in London Lancet.*

THERE were 15,875 deaths reported in Philadelphia last year, 15,591 births, and 6,752 marriages. Four sets of triplets were reported. About one in thirteen of the deaths were of colored persons. There were 2089 deaths from consumption.

VOL. LXXII.—No. 22A

Bibliographical Notices.

The Essentials of Materia Medica and Therapeutics. By ALFRED BARRING GARROD, M.D., F.R.S. First American from the Second English Edition. New York: William Wood & Co. 8vo. Pp. 439.

We are told by the author that this work "is intended to serve as a text-book of Materia Medica;" and that "it omits nothing essential to the study of the science," while "it excludes such details as are often embarrassing to the student and seldom necessary to the practitioner." This is a concise and accurate description of the work. We had carefully examined the English edition before we saw the American one. From a brief examination of the latter, we believe it to be a faithful reproduction of the former. The *Essentials of Materia Medica* is not an encyclopædia of the science, like that of Pereira, nor a series of monographs, like that of Stillé. It is rather a catalogue of the principal articles of the modern materia medica, with a brief statement of their natural history, their physical and chemical properties, their physiological action when this is known, and their therapeutical uses and dose. The physician will find its chief value to be that of a book of reference, in which he can see, at a glance, what are the important uses and dose of any article he may wish to prescribe. It contains no elaborate discussion of the physiological or therapeutical action of any drug, and therefore will not take the place of those comprehensive works on materia medica and therapeutics which have appeared during the last quarter of a century in Europe and this country. It is an excellent text-book, or rather guide for the medical student, inasmuch as it points out to him the articles that are most worthy of study. But it will not do for him to rely upon this alone. He should read other works if he would know even what is essential in modern materia medica. While studying others, and after having studied them, he will find this of value, first as a guide in his studies, and then as an aid to his memory afterwards.

In his preface to this edition, Dr. Garrod promises that it shall be followed by another work, "devoted exclusively to the consideration of the value of medicines in the treatment of disease." We are looking with great interest for the appearance of this promised book. Even Dr. Garrod will find it no easy task to point out the just value of medicines in therapeutics. We hope that he may be successful. E. H. C.

Handbook of Skin Diseases, for Students and Practitioners. By THOMAS HILLIER, M.D. Lond., Physician to the Skin Department of University College Hospital, &c. With Illustrations. Philadelphia: Blanchard & Lea. 1865.

"WHAT is the best book on Skin Diseases," is a question so frequently asked of those engaged in clinical instruction, as to leave no doubt of the non-existence of a treatise on this subject in our language fit to be placed in the hands of a student. Hardy's Manual is an excellent book, barring the French theory of diatheses, and Prof. Hebra's exhaustive work, now being published as part of Virchow's *Handbuch*, will leave almost nothing to be desired in the literature of this department of medicine; but unfortunately only a small propor-

tion of students possess a sufficient knowledge of French or German to make these works available for general instruction. The same necessity seems to be equally felt in England, for within a few months as many as five books on cutaneous diseases have been published there, and the author of the little volume now before us states that he has written it to supply this necessity. "My object has been to furnish to students and practitioners a trustworthy, practical and compendious treatise, which shall comprise the greater part of what has been long known of cutaneous diseases, and of what has been more recently brought to light by English, French and German dermatologists, as well as to embody the most important results of my experience in reference to these diseases."

Dr. Hillier's remarks on the classifications of these and other writers on this subject are very judicious, and the objections which he raises to the antiquated and thoroughly unscientific system of Plenck and Willan, on page 20, would seem to be insurmountable, and yet to the reader's astonishment he is found, on page 23, adopting a classification, to be followed throughout the book, which is in reality the very plan he has just demolished. He arranges all diseases under four main divisions—"parasitic, acute specific infectious diseases, syphilides, and other diseases." That is to say, he throws out syphilis and the acute exanthemata, which are not strictly affections of the skin, and then sub-divides cutaneous diseases into parasitic and non-parasitic. To the latter, or "other diseases," which are of course by far the most numerous and important, he applies this system of Willan, a system of which we have so lately expressed our opinion at length in this JOURNAL that we will not repeat it here. In accordance with this plan, he has not only been obliged to separate and describe, as distinct diseases, conditions of the skin which he acknowledges are only stages or modified forms of one and the same affection, but he groups others under the same head which have nothing whatever in common. Indeed, were any evidence wanting as to the utter unfitness of such an artificial system for the study of these diseases, it would be found in the contradictions and inconsistencies which the author constantly exhibits in endeavoring to adhere to it.

With this exception, there is very little to condemn in the book. The descriptions of the various diseases are, in general, correct and concise, and accounts of several rare affections are introduced, which have not been hitherto noticed in English works. There are a few errors, such as the confounding of chloasma with pityriasis versicolor, and others which might be mentioned, and there is too little minuteness in the directions for treatment throughout the book. It is not enough to state that a certain article of the *materia medica* is good in this or that affection; the student requires to be told when to use this, and, what is of greater importance, when not to use it.

As a descriptive manual of diseases of the skin, we can on the whole recommend Dr. Hillier's book, but it fails entirely to supply the want of a work adapted to the instruction of students. Two plates, illustrative of parasitic affections, are given by the author, and the American publishers have, we think with great impropriety, made a reference under each disease to its representation in Neligan's "Atlas of Cutaneous Diseases," which is published by the same house.

A Monograph on Glycerin and its Uses. By HENRY HARTSHORNE, M.D., Member of the American Philosophical Society, &c. Philadelphia: J. P. Lippincott & Co. 1865.

In this neat little book of sixty-eight pages the compiler has given us nearly everything yet ascertained relative to the properties, chemical relations, medical and pharmaceutical uses, and physiological action of one of the most remarkable and important substances in our materia medica. Possessed of wonderful powers as a solvent and preservative, and at the same time almost as inert as water, its chief value in our art lies in its employment as a vehicle for the administration and application of drugs in a more unchangeable and concentrated form than those hitherto used. Internally, it has been somewhat employed as a medicine in cough mixtures, phthisis and other diseases, but its therapeutic or nutritive powers must be very slight. We think the author has also dwelt too much upon its importance in cutaneous diseases, and has attributed effects to the vehicle which belong entirely to the substances combined with it. As a substitute for fat in ointments, and for water or alcohol in washes, there can be no doubt of its value in some cases, but by itself it has no curative action upon the skin. We can recommend this volume to our readers as an important chapter hitherto wanting in their works on materia medica.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JUNE 29, 1865.

AMERICAN OPHTHALMOLOGICAL SOCIETY.—It is to be regretted, we think, that, during the recent session of the American Medical Association in this city, the attempt to organize a Section of Ophthalmic Medicine was unsuccessful. The effort failed, as we understand, on account of the strong feeling expressed by some of the delegates that the establishment of such a section would be a recognition of the claims of a class of specialists, and would thus be a virtual decision upon the whole question of specialties, which was still in abeyance before the Association. We cannot but think that this opinion was entirely without just foundation. As well might it be said that any of the departments of medical science to which a section is devoted becomes thereby, in a bad sense, special in its character. As we understand it, a section is established merely as a matter of convenience and practical advantage, because the amount of scientific matter likely to be brought before it is such that it could not be fairly presented and discussed in sections already organized. A section is in reality nothing more than a standing committee on a particular subject, and can at any moment be dissolved when deemed expedient, as was done at the recent session of the Association in the case of the Section on Anatomy and Physiology. We are inclined to believe that, if the section asked for had been established, it would have proved to be one of the most interesting and fruitful in results of all the sections. A branch of medical science which furnishes the sole topic for a class of medical peri-

odicals of a very high character, which exclusively engages the attention of a large number of the most acute and philosophical minds in our profession at the present day, which has introduced within a few years so many new methods of diagnosis and treatment, giving to ophthalmology in some respects the character of an exact science, which has led to the formation of societies specially devoted to the subject, both in Europe and our own country—surely such a diligently cultivated field of research deserves the recognition of the Association which its friends desired.

The recent meeting of the American Ophthalmological Society in New York shows that there are devoted students enough of ophthalmic science in America to have made it worth the while of the Association to have recognized them. Its action must tend to alienate this large and valuable class of the medical profession. It is much to be regretted that its publications must be thus deprived of many articles which, while they would do it honor, would be likely to have a much wider circulation and exert a much greater influence for good than they possibly can do when published under the auspices of a comparatively small society. A friend has kindly furnished us with the following report of the second meeting of this Society, recently held in New York:—

The second annual meeting of this Society of American Oculists was held in the city of New York on the 13th and 14th of June, 1865. The President, Dr. Edward Delafield in the chair. Members were present from New York, Philadelphia, Cincinnati, Albany and Boston.

At the morning meeting of the first day, a carefully prepared report of the Committee on the Progress of Ophthalmology during the preceding year, was read by Dr. B. Joy Jeffries of Boston. Papers were also presented on "A Case of Intermittent Ophthalmia," by Dr. Derby, of Boston, and on "Treatment of Purulent and Gonorrhoeal Ophthalmia by means of Compression," by Dr. Hildreth, of Chicago.

The evening session was occupied in listening to and discussing a paper on "Specialties and their Relations to the General Practice of Medicine," by Dr. H. D. Noyes, of New York. The Society afterwards received elegant hospitalities, provided by members residing in the metropolis.

On the second day, a large part of the morning and afternoon session was occupied with a discussion of "Asthenopia," which had been assigned as the subject for special consideration at this meeting.

Dr. Dyer, of Philadelphia, exhibited a modification proposed by him of the test lines of Snellen for the determination of astigmatism.

In behalf of the Boston members present, Dr. Williams invited the Society to hold its next meeting in that city on the second Tuesday in June, 1866; and this invitation was accepted.

The subject of "The various operations for Cataract, and their comparative Success," was selected for special consideration at the next annual meeting, and, after the election of new members and the choice of officers for the ensuing year, the Society adjourned.

In the evening, the members were entertained by the President, Dr. Delafield, at his house, and separated, at the close of this very pleasant re-union, highly gratified with all the proceedings of the meeting.

W.

SUDDEN DEATH DURING LABOR, REPORTED BY DR. CASE.—*Messrs. Editors*,—In answer to a number of letters received from readers of the JOURNAL, I send you a statement furnished me by the physician in charge of Mrs. S., whose sudden death was reported in these pages not long since. The Doctor says :—

"The labor had been progressing slowly and regularly fifteen or eighteen hours, the pains neither severe nor frequent. At the last examination, the os was dilated an inch and a half or two inches. About an hour after this, the membranes were ruptured spontaneously. I was called into the room immediately. She seemed somewhat alarmed at the flow of water, and when I assured her it was all right, she said it was not so in her other labor. The os was well dilated. Soon another pain came on. The head of the child began to descend, the external parts to open, but in an instant it was all over. Her head dropped, the child receded. There was no rigidity of muscle, no pulse—the heart was still—the face purple, as if she had been strangled. There was about the usual amount of liquor amnii. I brought away the child by the feet. The uterus was not ruptured nor placenta detached."

I add a few words in answer to those who have written me on this subject. The patient was of medium size, pelvis rather large, fair complexion, nervous sympathetic temperament. This was her fifth pregnancy. First three times, miscarried from third to fifth month. The fourth time gave birth to a healthy boy, weighing nine pounds. Labor natural and easy, lasting from ten to twelve hours, followed by *chatonné placenta*, which was removed with great difficulty. For many years she had been troubled with a severe cough, and at times there was hæmoptysis, which confined her to her room.

This case has engaged the attention of some of our most eminent physicians, among whom I will mention Drs. De Laskie Miller, Ephraim Ingals, G. W. Bicknell, David Dodge and Orren Smith. Dr. Green's theory of "air in the veins" has its advocates, but I believe the larger number incline to the theory that death was caused by the rupture of some bloodvessel immediately connected with the heart.

Chicago, Ill., June 3d, 1865.

M. WENDELL CASE, M.D.

OPERATION FOR HARE-LIP, &c. *Messrs. Editors*,—In a recent number of your JOURNAL I observe a suggestion in reference to an improvement in the construction of hare-lip pins, from Dr. S. B. S., of Exeter, N. H. I have no doubt of the utility of what the Doctor suggests; but at the same time I think my own method of operating preferable.

I have had occasion, within the last ten years, to operate for hare-lip a very considerable number of times, and have invariably used the finest sewing needles that I could obtain. I insert them with a suitable pair of pliers (a great deal better, by the way, than the fingers for this purpose), and take care to make the insertion deep and thorough. After the parts are securely bound with sutures, I cut off both ends of the needles and cover them with adhesive plaster. The children appear to enjoy themselves at the breast as well as before the operation. In every instance in my experience thus far, the success has been perfect, and my conviction is, that every surgeon who gives this

method a fair trial will never after use anything else. I usually insert three needles.

I have also practised the dressing of other incised wounds in the same way, with very satisfactory results. Only yesterday, after the amputation of the mamma, I dressed in this way, because from previous experience I am satisfied of its superiority over the ordinary suture. In securing lacerated and incised injuries of the scalp, there is no comparison between the use of these fine needles and any others I ever saw used. In most cases it is entirely unnecessary to remove any of the hair; and the parts tolerate the presence of the needles much better than they do that of any suture.

Owego, April 4th, 1865.

Very truly, &c.,

E. DANIELS, M.D.

[The above method of operating for hare-lip is essentially that recommended by Prof. Gross, in his great work on Surgery, as the best. Dr. Gross, however, does not find it necessary to use any plasters.—Eds.]

BOYLSTON PRIZE.—We are happy to announce that the Boylston Prize for the best dissertation on Recent Advances in Ophthalmic Science, has been awarded to Dr. Henry W. Williams, of this city. For the subjects for next year's prizes our readers are referred to the advertisement in this week's JOURNAL.

THE *New York Medical Journal* announces the trial and conviction of Capt. Silas H. Swetland, Commissary of Subsistence Volunteers, charged with the appropriation of public supplies and funds to his own use. The *New York Journal* speaks of him as "one of the leaders of the conspiracy which resulted in the removal of Dr. William A. Hammond from the office of Surgeon-General," and further says that "being at the time an agent for one of the States at Washington, he importuned Dr. Hammond to give him the appointment of Inspector of Liquors for the Medical Department, alleging that the Medical Purveyors knew nothing about this part of their duty. His application was enforced by a document signed by several members of Congress. Dr. Hammond refused to do so for the reasons that no such office was known to the law, and that a system was already in operation, by which all liquors purchased by orders from his office were examined chemically; and that as regarded the others, the Medical Purveyors were as competent to judge of the good quality of all their supplies as was Mr. Swetland. Swetland then went to the Secretary of War with his complaints, and the next that is heard of him is as an agent of the infamous Reeder Commission, searching the hospitals for specimens of bad liquors and medicines. After he had performed what was expected of him in this capacity, he was appointed a captain in the Commissary Department, and ordered to the Department of the South, * * * By virtue of special orders from the headquarters of the District of Florida, he has been tried upon the charge of 'Fraud,' in support of which sixteen specifications were adduced, all alleging the appropriation of public supplies and funds to his own use. The sixteenth was dropped by the prosecution, but of the remaining fifteen

specifications and of the charge he was found guilty. The following is the sentence of the court martial :—

“ ‘ And the court do therefore sentence him, Captain Silas H. Swetland, Commissary of Subsistence Volunteers, to be cashiered, with the loss of all pay and allowances now due, or to become due; to be fined (\$5,000) five thousand dollars; to be imprisoned for one year in such prison or penitentiary as the proper authorities may direct; and the sentence to be published as provided in the 85th Article of War.’ ”

“ General Gillmore's orders in the case are as follows :—

“ ‘ The proceedings, findings, and sentence in the foregoing case having been approved by the officer appointing the court, and submitted to the Major General commanding the Department, the same are hereby approved and confirmed. Captain Swetland ceases to be an officer of the United States from the date of the publication of this order. He will be confined under charge of the Provost Marshal of the District of Florida, until authority is received from the Secretary of War to send him to the penitentiary at Albany, New York, which is designated as the place of his punishment.

“ ‘ By command of Major-General Q. A. Gillmore.

“ W. S. M. BURGER, *Assist. Adjutant General.*”

“ The 85th Article of War, referred to in the foregoing sentence, is as follows :—

“ ‘ In all cases where a commissioned officer is cashiered for cowardice or fraud, it shall be added in the sentence that the crime, name, and place of abode, and punishment of the delinquent be published in the newspapers in and about the camp, and of the particular State from which the offender came, or where he usually resides; after which it shall be deemed scandalous for an officer to associate with him.’ ”

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, JUNE 24TH, 1866.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	38	48	86
Ave. mortality of corresponding weeks for ten years, 1853—1863,	35.1	36.2	71.3
Average corrected to increased population	00	00	78.88
Death of persons above 90	0	0	0

MARRIED,—At Glade Mills, Butler Co., Penn., May 31st, Dr. Charles L. Allen, of Rutland, Vt., to Miss Gertrude Lyon, of the former place.

DIED,—In New Orleans, June 2d, suddenly, Dr. Ambrose L. White, in the 62d year of his age.

DEATHS IN BOSTON for the week ending Saturday noon, June 24th, 66. Males, 38—Females, 48. Accident, 5—apoplexy, 1—congestion of the brain, 1—disease of the brain, 2—bronchitis, 4—burns, 1—cholera, 1—cholera infantum, 1—chorea, 1—consumption, 13—convulsions, 4—croup, 1—diarrhea, 1—diphtheria, 2—dropsy, 2—drowned, 2—dysentery, 5—epilepsy, 1—bilious fever, 1—typhoid fever, 3—gastritis, 1—disease of the heart, 5—infantile disease, 2—intemperance, 1—disease of the kidneys, 2—laryngitis, 1—lockjaw, 1—congestion of the lungs, 1—inflammation of the lungs, 3—marasmus, 2—measles, 1—old age, 1—paralysis, 2—premature birth, 1—smallpox, 4—suicide, 2—unknown, 2—whooping cough, 2—wounds, 1.

Under 5 years of age, 27—between 5 and 20 years, 9—between 20 and 40 years, 23—between 40 and 60 years, 14—above 60 years, 13. Born in the United States, 51—Ireland, 22—other places, 13.